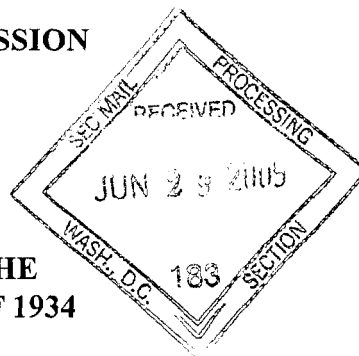


SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 11-K

ANNUAL REPORT
PURSUANT TO SECTION 15(d) OF THE
SECURITIES AND EXCHANGE ACT OF 1934



BEST AVAILABLE COPY

(Mark one):

- ☒ ANNUAL REPORT PURSUANT TO SECTION 15 (d) OF THE SECURITIES
EXCHANGE ACT OF 1934 (NO FEE REQUIRED, EFFECTIVE OCTOBER 7, 1996)

For the fiscal year ended December 31, 2004.

OR

- ☐ TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES
EXCHANGE ACT OF 1934 (NO FEE REQUIRED)

For the transition period from _____ to _____.

Commission file number 1-3433

DOW CHEMICAL CO/DC



05059166

- A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

DHCompounding Company Savings and Retirement Plan and Trust

- B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

DHCompounding Company, 1260 Carden Farm Drive, Clinton, TN 37716

PROCESSED
JUL 11 2005
THOMSON
FINANCIAL

Financial Statements
and Supplemental Schedule

DH Compounding Company
Savings and Retirement Plan and Trust

*As of December 31, 2004 and 2003, and
for the year ended December 31, 2004
with Report of Independent Registered Accounting Firm*

DH Compounding Company
Savings and Retirement Plan and Trust
Financial Statements and Supplemental Schedule

As of December 31, 2004 and 2003, and
for the year ended December 31, 2004

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Note: All other schedules required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted, because they are not applicable.



COULTER & JUSTUS, P.C.

Report of Independent Registered Accounting Firm

To the Fiduciaries of

DH Compounding Company Savings and Retirement Plan and Trust
Clinton, Tennessee

We have audited the accompanying statement of net assets available for benefits of the DH Compounding Company Savings and Retirement Plan and Trust (the "Plan") as of December 31, 2004, and the related statement of changes in net assets available for benefits for the year then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these 2004 financial statements based on our audit.

We conducted our audit in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the 2004 financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2004, and the changes in its net assets available for benefits for the year then ended, in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the 2004 financial statements taken as a whole. The supplemental schedule of assets (held at end of year) is presented for the purpose of additional analysis and is not a required part of the financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Act of 1974. This supplemental information is the responsibility of the Plan's management. The supplemental information has been subjected to the auditing procedures applied in the audit of the 2004 financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

Coulter & Justus, P.C.
Coulter & Justus, P.C.

June 10, 2005
Knoxville, Tennessee

Report of Independent Registered Public Accounting Firm

To the Trustee and Participants of
DH Compounding Company Savings and Retirement Plan and Trust
Clinton, Tennessee

We have audited the accompanying statement of net assets available for benefits of the DH Compounding Company Savings and Retirement Plan and Trust (the "Plan") as of December 31, 2003. This financial statement is the responsibility of the Plan's management. Our responsibility is to express an opinion on this financial statement based on our audit.

We conducted our audit in accordance with standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statement referred to above presents fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2003, in conformity with accounting principles generally accepted in the United States of America.

Deloitte & Touche LLP

Nashville, Tennessee
March 29, 2005

DH Compounding Company
Savings and Retirement Plan and Trust

Statement of Net Assets Available for Benefits

	December 31	
	2004	2003
Assets		
Investments with party-in-interest, at fair value:		
Money market fund	\$ 400,114	\$ 364,518
Mutual funds	2,946,816	2,668,711
Common stock of investors	1,239,413	1,031,507
Participant notes receivable	495,521	413,174
Total investments with party-in-interest	5,081,864	4,477,910
Sponsor employer cash contributions receivable	205,006	206,814
Total assets	5,286,870	4,684,724
Liabilities		
Excess contributions payable	-	2,061
Net assets available for benefits	\$5,286,870	\$4,682,663

See accompanying Notes to Financial Statements.

DH Compounding Company
Savings and Retirement Plan and Trust

Statement of Changes in Net Assets Available for Benefits

Year ended December 31, 2004

Additions

Cash contributions:	
Sponsor employer	\$ 245,846
Participants	201,522
Total cash contributions	<u>447,368</u>
Investment income:	
Interest and dividends	18,195
Interest on participant notes receivable	24,202
Net investment income	<u>42,397</u>
Other income	11,859
Total additions	<u>501,624</u>

Deductions

Benefits payments	576,087
Administrative expenses	2,040
Total deductions	<u>578,127</u>

Net deductions	(76,503)
Net realized and unrealized appreciation in fair value of investments	680,710
Net increase	<u>604,207</u>

Net assets available for benefits at beginning of year	4,682,663
Net assets available for benefits at end of year	<u><u>\$5,286,870</u></u>

See accompanying Notes to Financial Statements.

DH Compounding Company
Savings and Retirement Plan and Trust

Notes to Financial Statements

December 31, 2004

1. Description of the Plan

DH Compounding Company Savings and Retirement Plan and Trust (the "Plan") is a defined contribution savings and retirement plan and is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended ("ERISA"). Any employee of DH Compounding Company (the "Company"), a joint venture of the Dow Chemical Company and PolyOne Corporation (the "Investors"), who is not governed by a collective bargaining agreement is eligible to be credited with the Company's contributions and to make before tax employee contributions.

Administration of the Plan

The Fiduciaries of the Plan, as appointed by the Partnership Committee of the Company, are responsible for the management and control of Plan assets. The Company has established a plan services agreement with ING Life Insurance and Annuity Company (the "Custodian") to provide recordkeeping services for the Plan. The Company has elected ING National Trust (the "Trustee") to be the Plan's trustee and hold all investments of the Plan.

Participant Account

Each participant's account is credited with the participant's contributions, the Company's matching contributions, and allocations of Company discretionary contributions, Plan earnings and administrative expenses. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Contributions

A participant may elect to contribute up to a maximum of 15% of total compensation, subject to certain IRS limitations.

The Company will contribute bi-weekly to the Plan a matching contribution equal to 25% of each eligible participant's before tax contributions not to exceed 6% of each participant's elected contributions ("Company Match"). The Company Match is provided to the Trustee in the form of cash, and the Trustee uses the contribution to purchase equal amounts of the Investors' common stock.

DH Compounding Company
Savings and Retirement Plan and Trust
Notes to Financial Statements (continued)

1. Description of Plan (continued)

Contributions (continued)

The Company may also contribute annually to the Plan an additional matching contribution ("Additional Company Match") equal to 30% of each eligible participant's before-tax contributions not to exceed 6% of each participant's elected contribution. The Additional Company Match is also provided to the Trustee (accounts for eligible participants employed by the Company on the last day of the year will be credited with this contribution) in the form of cash. The Trustee also uses this contribution to purchase equal amounts of the Investors common stock.

The Company makes an annual safe harbor contribution ("Safe Harbor Contribution") in the amount of 3.5% of the employees' total compensation on a tax deferred basis to each participant's retirement account. The Safe Harbor Contribution is allocated to each fund as elected by the participant.

Receivables from the Company for these contributions are unsecured.

Vesting

Participants are immediately vested in their elective deferral contributions, all Company contributions and actual earnings thereon.

Investments

The Trustee maintains the Plan assets in various investment funds which are options under the Plan. Each investment fund with the Trustee is a collective investment trust in which the Plan has an undivided interest with other employee benefit plans that participate in the investment funds. The Company Match and the Additional Company Match are invested in the Investors' common stock as directed by the Company. The participant may, at their option, sell or buy these stocks on a daily basis. The maximum loss, if any, that would be incurred by the Plan if the counterparties to the Plan's investments failed to perform, is the recorded amount of such investment.

DH Compounding Company
Savings and Retirement Plan and Trust

Notes to Financial Statements (continued)

1. Description of Plan (continued)

Participant Notes Receivable

Subject to approval by the Plan administrator, participants may borrow from the general assets of the Plan. The amount and terms of the notes receivable must meet certain criteria, including a general limitation on total aggregate notes receivable outstanding to any individual participant equal to the lesser of one-half of the participant's vested individual account balance or \$50,000. The notes receivable bear a reasonable interest rate and are generally repayable in level periodic payments over various terms of up to five years, except for those utilized for the acquisition of a qualified principal residence, which may be repaid over a reasonable period of time in excess of five years. Principal and interest is paid proportionally through payroll deductions.

Payment of Benefits

Upon termination of service due to death, disability or retirement, a participant may elect to receive an amount equal to the value of the participant's interest in his or her account in either a lump-sum amount, or in periodic installments over a period not to exceed the life expectancy of the participant or their beneficiary. A total withdrawal of a participant's account may be elected upon a termination due to voluntary quit or discharge. Withdrawals by active participants are also allowed in cases of "deemed financial need" as defined in the Plan document. In such cases, withdrawals can only be made from the participant's contribution portion of their account. As of December 31, 2004 and 2003, there were no benefits due to participants who have withdrawn from the Plan.

Plan Termination

Although it has not expressed any intent to do so, the Company has the right to terminate the Plan at any time, subject to the provisions of ERISA.

Summary Plan Description

The foregoing description of the Plan provides only general information. Participants should refer to the Summary Plan Description for a more complete description of the Plan's provisions. Copies of this document are available from the Company.

2. Summary of Significant Accounting Policies

Accrual Basis of Accounting

The accounting records of the Plan are maintained on the accrual basis of accounting in accordance with accounting principals generally accepted in the United States of America.

DH Compounding Company
Savings and Retirement Plan and Trust
Notes to Financial Statements (continued)

2. Summary of Significant Accounting Policies (continued)

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires Plan management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates. The Plan utilizes various investment securities. Investment securities, in general, are exposed to various risks, such as interest rate, credit and overall market volatility. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect the amounts reported in the financial statements.

Investment Valuation and Income Recognition

The Plan investments are valued in the financial statements at their respective quoted market price as of the Plan's year-end or, if not available, the last reported market price. Net appreciation of investments consists of unrealized and realized gains and losses on investments. Units of mutual funds are valued at quoted market prices, which represent the accumulation unit value of units held by the Plan at year-end. Participant loans are valued at the outstanding loan balances.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

Administrative Expenses

Most of the administrative expenses of the Plan are paid by the Company.

Payment of Benefits

Benefits are recorded when paid.

Reclassifications

Certain amounts in the prior year have been reclassified to conform with 2004 classifications.

DH Compounding Company
Savings and Retirement Plan and Trust

Notes to Financial Statements (continued)

3. Tax Status

The Internal Revenue Service has ruled (October 7, 2004) that the Plan qualifies under provisions of the IRC and is, therefore, not subject to tax under present income tax law. The Plan is required to operate in conformity with the IRC to maintain its qualification. The Plan Administrator is not aware of any course of action or series of events that have occurred that might adversely affect the Plan's qualified status.

4. Investments

The fair value of individual investments in mutual funds that represented five percent or more of the Plan's net assets as of December 31, 2004 and 2003, are as follows:

	2004	2003
*ING Fixed Account	\$400,114	\$364,518
*ING VP Strategic Allocation Balanced Portfolio	378,370	505,198
*ING VP Index Plus Large Cap Portfolio	575,006	683,823
*Janus Series Capital Appreciation Fund	**	365,389
*PolyOne Stock Fund	564,030	392,144
*Dow Chemical Stock Fund	675,383	639,363
*ING Sol Bro Large Cap Growth	388,898	**
*Lord Abbott Small Cap Fund Value	355,021	**
*ING Oppenheimer Global Portfolio	284,278	**

*Denotes a party-in-interest to the Plan.

**Fair value did not exceed 5% of the Plan's net assets available for benefits at year-end.

During 2004, transactions with funds to which ING Life Insurance and Annuity Company is a party-in-interest, excluding interfund transfers, included purchases of \$560,525 and redemptions of \$642,890. Also during 2004, transactions with stock funds of the Investors, excluding interfund transfers, included purchases of \$124,817 and sales of \$201,555.

The Plan's investments (including investments bought, sold, and held during the year) appreciated in fair value during 2004 as follows:

Mutual funds	\$396,065
Common stocks	284,645
Net appreciation in fair value	<u>\$680,710</u>

DH Compounding Company
Savings and Retirement Plan and Trust

Notes to Financial Statements (continued)

5. Company Stock of Investors

Approximately 24% of the Plan's investments are in shares of the Investors' common stock. The remaining investments are invested in 16 mutual funds that are held within the ING Life Insurance and Annuity Company Separate Account D unit investment trust, which was established by the Trustee for use with the variable annuity contracts between the Company and the Trustee.

6. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements as of December 31 to Form 5500:

	<u>2004</u>	<u>2003</u>
Net assets available for benefits per the financial statements	\$5,286,870	\$4,682,663
Sponsor employer cash contributions receivable	(205,006)	(206,814)
Excess contributions payable	-	2,061
Net assets available for benefits per the Form 5500	<u>\$5,081,864</u>	<u>\$4,477,910</u>

The following is a reconciliation of cash contributions per the financial statements to Form 5500 for the year ended December 31, 2004:

Cash contributions per the financial statements	\$447,368
Less current year cash contributions receivable	(205,006)
Add prior year cash contributions receivable	206,814
Less prior year excess contributions payable	(2,061)
Cash contributions per the Form 5500	<u>\$447,115</u>

DH Compounding Company
Savings and Retirement Plan and Trust

Employer Identification Number: 62-1427340; Plan Number: 001

Schedule H, Line 4i--Schedule of Assets (Held at End of Year)

December 31, 2004

Identity of Issue, Borrower, Lessor or Similar Party	Description of Investment, Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	Cost	Current Value
*ING Life Insurance and Annuity Company	AllianceBernstein Growth and Income Portfolio	**	\$ 18,240
*ING Life Insurance and Annuity Company	Baron Growth Fund	**	181,780
*ING Life Insurance and Annuity Company	PolyOne Stock Fund	**	564,030
*ING Life Insurance and Annuity Company	Dow Chemical Stock Fund	**	675,383
*ING Life Insurance and Annuity Company	CRM Mid Cap Value Fund	**	107,000
*ING Life Insurance and Annuity Company	Fidelity Adviser Mid Cap Fund	**	202,872
*ING Life Insurance and Annuity Company	ING American Century Small Cap Value	**	76,364
*ING Life Insurance and Annuity Company	ING Fixed Account	**	400,114
*ING Life Insurance and Annuity Company	ING Intermediate Bond Fund	**	61,798
*ING Life Insurance and Annuity Company	ING JPMorgan Mid Cap Value	**	184,720
*ING Life Insurance and Annuity Company	ING VP Index Plus LargeCap Portfolio	**	575,006
*ING Life Insurance and Annuity Company	ING VP International Value Portfolio	**	118,008
*ING Life Insurance and Annuity Company	ING VP Strategic Allocation Balanced Portfolio	**	378,370
*ING Life Insurance and Annuity Company	ING VP Strategic Allocation Growth Portfolio	**	3,243
*ING Life Insurance and Annuity Company	ING VP Strategic Allocation Income Portfolio	**	11,218
*ING Life Insurance and Annuity Company	ING Oppenheimer Global Portfolio	**	284,278
*ING Life Insurance and Annuity Company	ING Soloman Brothers Large Cap Growth	**	388,898
*ING Life Insurance and Annuity Company	Lord Abbott Small Cap Value Fund	**	355,021
Participant loans	Notes receivable from participants, with interest ranging from 5% to 10.5%, maturing in 1 to 5 years (2005-2009)	-	495,521
Total assets held at end of year			<u>\$5,081,864</u>

*Denotes a party-in-interest to the Plan.

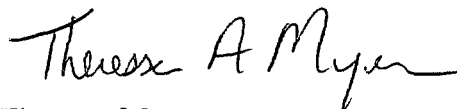
**Cost information is not required for participant-directed investments, and therefore, is not included.

SIGNATURES

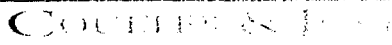
Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

DHCompounding Company Savings and Retirement Plan and Trust

Date: June 28, 2005

A handwritten signature in black ink, reading "Theresa A. Myers". The signature is written in a cursive style with a long horizontal flourish at the end.

Theresa Myers
Human Resources Manager



Consent of Coulter & Justus, P.C. Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the above Registration Statements on Form S-8 (Registration Numbers 33-51453 and 333-37344) pertaining to the DH Compounding Company Savings and Retirement Plan and Trust of our report dated June 10, 2005, with respect to the financial statements and schedules of the DH Compounding Company Savings and Retirement Plan and Trust included in this Annual Report (Form 11-K) for the year ended December 31, 2004.

Coulter & Justus, P.C.

June 10, 2005
Knoxville, Tennessee

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statements No. 33-51453 and 333-37344 on Form S-8 of our report dated March 29, 2005, appearing in this Annual Report on Form 11-K of DH Compounding Company Savings and Retirement Plan and Trust for the year ended December 31, 2004.

Deloitte & Touche LLP

Nashville, Tennessee
June 27, 2005